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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,663	06/21/2001	Shantha Sarangapani	103.215.118	4750
23483	7590	09/09/2004	EXAMINER	
WILMER CUTLER PICKERING HALE AND DORR LLP 60 STATE STREET BOSTON, MA 02109				PAK, JOHN D
		ART UNIT		PAPER NUMBER
		1616		

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/886,663

Applicant(s)

SARANGAPANI ET AL.

Examiner

JOHN D PAK

Art Unit

1616

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply****A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 18 June 2004.  
2a) This action is FINAL.      2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1,2 and 4-20 is/are pending in the application.  
4a) Of the above claim(s) 1,2,4,7,8,11,12 and 15-20 is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 5,6,9,10,13 and 14 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/17/04.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_.

Claims 1-2 and 4-20 are pending in this application.

Applicant is advised that a substitute specification page 10 is needed because the text in that page is illegible. Also, specification page 23 contains a drawing. The specification cannot contain a drawing: it must be presented as a separate drawing figure – note also to amend the Brief Description of the Drawings.

Applicant's election of Group III, claims 6, 10 and 14 (laminating layer, catalytic material and antimicrobial are "carbon free") in the reply filed on 6/18/2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Accordingly, claims 5-6, 9-10 and 13-14 will presently be examined *to the extent that they read on the elected Group III*, i.e. to the extent that they read on the "carbon free" feature. Claims 1-2, 4, 7-8, 11-12 and 15-20 are withdrawn from further consideration as being directed to non-elected subject matter.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-6, 9-10, 13-14 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Features, which are critical or essential to the practice of the invention, are not included in the claim(s), and the claims are

therefore not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

(1) The “carbon free” feature in the elected invention (claims 6, 10 and 14) is not enabled. Although a feature that is **free from activated carbon** (paragraph bridging specification pages 1 and 2) may be enabled, “carbon free” in the laminating layer, catalytic material and antimicrobial is not enabled. As presently claimed, “carbon free” would exclude carbon atoms from the laminating layer, which would be close to impossible, since laminating layers contain some carbon in their matrix or network.

(2) Antimicrobial component – the antimicrobial component is consistently described as submicron-, micron-, nano-size, or at least finely powdered throughout the specification (see from specification page 4, last paragraph to page 5, line 11). Presently, the claims recite no requirements as to the form of the antimicrobial component (except in claim 6 as deposited on the catalytic material, which does not resolve this problem).

(3) Amount of the antimicrobial or catalytic material – the claims are presently silent as to exactly how much of the antimicrobial or catalytic material must be incorporated into the laminating layer to function for deactivating the various chemical and/or biological agents or being protective for chemical or biological agents.

The nature of this invention is in chemical deactivation of harmful chemicals. The state of the art is silent as to “carbon free” systems. While the relative skill of those in

the art is high given the plenary safety concerns, unpredictability is quite high and tolerance for failure is low. The amount of direction or guidance that is provided by the originally filed disclosure is for being free from activated carbon and for antimicrobial components that are in at least finely powdered form present at sufficient amounts to be antimicrobially effective. There is no other guidance or working example as to large particle sizes and low amounts that would not be antimicrobially effective. Therefore, the nature of the invention and the sensitive safety issues involved, the quantity of experimentation that would be necessary to practice the elected invention related to a "carbon free" system would be undue. The claims, to the extent that they read on the elected invention, are thereby not enabled.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Gary Kunz, can be reached on **(571)272-0887**.

The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

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JOHN PAK  
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GROUP 1600